Picture / graph - 2:

Table 2. Results

Result	Group TA (n=27)	Group TF (n=74)	*p* Value
Operation Time (min)	99 ± 19.8	157 ± 70	< 0.001
Contrast dye (ml)	274.85 ± 103.6	343.47 ± 114.8	0.006
Radiation exposure (min)	12.65±3.33	32.76±9.57	<0.001
Postoperative LOS (days)	8.74±5.45	7.14±7.79	0.25
Early mortality	3(11.1%)	7(9.4%)	0.7
Major complications	2(7.4%)	7(9.4%)	0.75

Conclusion: The TA-TAVI is more efficient and results in similar early outcomes compared to the TF approach in our setting.
Disclosure of Interest: None declared

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Validation of the valve academic research consortium definition of bleeding among patients undergoing transcatheter aortic valve implantation

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Introduction: Bleeding is a common complication after transcatheter aortic valve implantation (TAVI) and associated with impaired clinical outcome. The Valve Academic Research Consortium (VARC) has recently proposed an updated version of endpoint definitions. Whether the bleeding definition according to VARC is best in predicting clinical outcomes among patients undergoing TAVI has not been evaluated.
Method: Between August 2007 and April 2012, 489 patients underwent TAVI using different devices and access routes. Bleeding events were prospectively collected and assessed according to VARC, Bleeding Academic Research Consortium (BARC), Thrombolysis in Myocardial Infarction (TIMI) and the Global Use of Strategies to Open Occluded Arteries (GUSTO) definition. The primary outcome was all-cause mortality at 30 days.

Results: Overall 152 bleeding events occurred in 130 patients (26.6%) during the peri-procedural in-hospital stay and were mainly related to access-site complications (n=101, 66.4%). Life-threatening bleeding (LT) according to VARC was associated with a significant increase in 30-day (HR 4.3, 95%CI 2.0-9.4) and one-year mortality (HR 2.0, 95%CI 1.2-3.5). The predictive accuracy of VARC LT bleeding for all-cause mortality at 30 days was 86% with a sensitivity of 36% and a specificity of 89%. The predictive ability of a multivariate model for 30-day mortality (c-statistics 0.744) was improved after adding LT bleeding according to VARC (c-statistics 0.773, p<0.001) to an extent similar to the criteria of BARC≥3 (c-statistics 0.776, p=0.002), TIMI major (c-statistics 0.768, p=0.001) and GUSTO severe or LT (c-statistics 0.791, p<0.001).
Conclusion: Life-threatening bleeding according to the VARC criteria in the peri-procedural phase after TAVI was associated with a significant increase in all-cause mortality at 30-days and one-year after the intervention. The predictive ability of LT bleeding according to VARC for all-cause mortality at 30-days was comparable to the definition of BARC≥3, TIMI major and GUSTO severe or LT.
Disclosure of Interest: None declared

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Localization and natural course of paravalvular regurgitation after implantation of the self-expanding corevalve: Insights from serial tee measurements

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Introduction: Evidence indicates that paravalvular regurgitation (PAR) may improve after transcatheter aortic valve implantation (TAVI) in a subset of patients. However, precise assessment of PAR is difficult with transthoracic echocardiography, and the degree of improvement is unknown.
Method: Transoesophageal echocardiography (TEE) studies were performed at 30 days and 1 year after transcatheter aortic valve implantation (TAVI) with a CoreValve for the treatment of severe native aortic valve stenosis. In addition to conventional measurements, PAR orifice area, angle, and length were assessed in the cross-sectional short axis view at the level of the native aortic annulus (Figure 1).
Results: A total of 47 patients were investigated with TEE at 30 days and at 1 year post TAVI. Figure 2 shows the location and frequency of PAR jets at 30 days (2A) and at 1 year (2B). PAR was predominantly localized at the commissure of the non-coronary and left-coronary cusp (30% of patients) and in the middle of the left-coronary cusp (28% of patients), and much less frequently at other parts of the native valve. At 30 days, 25 patients (53%) had no PAR, 14 (30%) had 1 jet, and 8 (17%) had 2 or more jets (a maximum of 4 jets). At 1 year, there were 28 patients (60%) without PAR, 15 (32%) had 1 jet, and the remaining 4 (9%) had 2 or more jets. Between 30 days and 1 year, cumulative cross-sectional area of regurgitation decreased from 0.11 cm^2 to 0.06 cm^2 ($p = 0.02$), cumulative regurgitation circumference decreased from 31 degrees to 18 degrees ($p < 0.01$), and cumulative regurgitation length decreased from 6.9 to 3.6 mm ($p < 0.01$) indicating a decrease of PAR by about 45%.